1. Mechanism for securing data access of a first subscriber
(11) or a plurality of subscribers (12...14), which are
arranged in a first subnetwork (20) of an automation network
(1), to a second subscriber (15) or a plurality of subscribers
(10, 11), which are arranged in a second subnetwork of the
automation network (1), comprising at least one so-called
secure switch (16, 24, 26), which is connected upstream of the
first subscriber (11) or subscribers (12...14) of the first
subnetwork (20), for establishing what is known as a tunnel
(29, 30) to the second subscriber (15) or subscribers (10, 11)
of the second subnetwork, by which data can be securely
transmitted via an insecure network, wherein the secure switch
(16, 24, 26) is constructed as an Ethernet switch and at least
one port (17, 25, 28) is constructed as a layer 3 port for
producing a tunnel end point in accordance with the IPsec
protocol and wherein the secure switch (16, 24, 26)
establishes the tunnel in a substitutional manner for the
first subscriber (11) or in a substitutional manner for the
subscribers (12...14) of the first subnetwork (20) and
allocates the tunnel to the subscriber or subscribers by using
the respective subscriber address.

2. Mechanism according to claim 1, characterized in that a
configuration tool (11) is provided for configuring the
automation network (1), by which parameter data of the secure
switch (16, 24, 26) can automatically be generated and
transmitted to the secure switch.

3. Mechanism according to either claim 1 or claim 2,
characterized in that the secure switch (40) has at least one
port (47, 49, 50) which is constructed as a WLAN end point and
is capable of producing a tunnel end point.

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4. Mechanism according to any one of the preceding claims, characterized in that the secure switch is constructionally suitable for use in an automation system.

5. Mechanism according to any one of the preceding claims, characterized in that a port (45) capable of producing a tunnel end point can be distinguished from other ports (41...44) of the secure switch (40) by a marking.

6. Mechanism according to claim 5, characterized in that the marking can be changed over.

7. Coupling device, referred to as a secure switch, for securing data access of a first subscriber or a plurality of subscribers, which are arranged in a first subnetwork of an automation network, to a second subscriber or a plurality of subscribers which are arranged in a second subnetwork of the automation network, wherein the secure switch can be connected upstream of the first subscriber or subscribers of the first subnetwork, wherein the secure switch (16, 24, 26) is constructed as an Ethernet switch and at least one port (17, 25, 28) is constructed as a layer 3 port for producing a tunnel end point in accordance with the IPsec protocol and wherein the secure switch (16, 24, 26) comprises a device (46), referred to as a secure channel converter, for establishing what is known as a tunnel to the second subscriber or subscribers of the second subnetwork, by which data can be securely transmitted via an insecure network, wherein the tunnel can be established in a substitutional manner for the first subscriber or subscribers of the first subnetwork and can be allocated to the subscriber or subscribers by using the respective subscriber address.